WHAT IS CLAIMED IS:

1. A generic call server in a telecommunications network for performing call-control functions and interfacing between any two network components selected from a plurality of network components that utilize a plurality of different signaling protocols, said call server comprising:

a Generic Call-control State Machine (GCSM) that performs call-control functions that are common to all of the protocols; and

a plurality of external signaling systems that interface between the GCSM and the selected network components and perform call-control functions that are specific to each protocol.

2. The generic call server of claim 1 further comprising a Media Gateway (MGW) Handler that acts as a media signaling protocol handling server and interfaces between the GCSM and a media gateway.

3. The generic call server of claim 2 wherein some of the network components are in a packet-switched network and some of the network components are in a circuit-switched network, and the MGW Handler includes logic that immediately returns a media acknowledgment message to the GCSM when the GCSM requests that a media context be

created, and the network component being interfaced with the GCSM is in a circuit-switched network.

4. The generic call server of claim 1 wherein the GCSM includes:

a plurality of call-control states that are common to all of the signaling protocols, each state having at least one defined internal signaling message that is sent to an external signaling system upon entering the state; and

at least one triggering event associated with each state, the triggering event causing the GCSM to enter the associated state.

5. The generic call server of claim 4 wherein each of the plurality of external signaling systems includes means for converting internal signaling messages received from the GCSM to protocol-specific messages that are sent to the network components.

6. The generic call server of claim 5 wherein the means for converting internal signaling messages received from the GCSM to protocol-specific messages includes at least one adaptation protocol layer corresponding to the upper layers in each signaling protocol.

7. A generic call server in a telecommunications network for performing call-control functions and interfacing between a plurality of different network components that utilize a plurality of signaling protocols, said call server comprising:

a Generic Call-control State Machine (GCSM) that performs call-control functions that are common to all of the protocols, the GCSM including:

a plurality of call-control states that are common to all of the signaling protocols, each state having at least one defined internal signaling message that is sent to an external signaling system upon entering the state; and

at least one triggering event associated with each state, the triggering event causing the GCSM to enter the associated state;

a plurality of external signaling systems that perform call-control functions that are specific to each protocol, and interface between the GCSM and the network components; and

a Media Gateway (MGW) Handler that acts as a media signaling protocol handling server and interfaces between the GCSM and a media gateway.

8. In a telecommunications network, a Generic Call-control State Machine (GCSM) for performing call-control functions that are common to a plurality of signaling protocols, said GCSM interfacing with a plurality of external signaling systems that perform call-control functions that are specific to each signaling protocol, said GCSM comprising:

a plurality of call-control states that are common to all of the signaling protocols, each state having at least one defined internal signaling message that is sent to an external signaling system upon entering the state; and

at least one triggering event associated with each state, the triggering event causing the GCSM to enter the associated state.

9. In a telecommunications network in which call-control logic is utilized to perform call-control functions, and a plurality of different network components utilize a plurality of different signaling protocols, a method of performing the call-control functions and interfacing between any two components utilizing any two protocols without redesigning the call-control logic, said method comprising the steps of:

performing call-control functions that are common to all of the protocols with a Generic Call-control State Machine (GCSM);

performing call-control functions that are specific to each protocol with a plurality of external signaling systems that are in communication with the GCSM;

communicating between the GCSM and the external signaling systems utilizing internal signaling messages;

converting between the internal signaling messages and selected protocol-specific messages in the external signaling systems; and

communicating between the external signaling systems and the network components utilizing the protocol-specific messages.